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RESERVE

# National Cooperative Dairy Herd Improvement Program



*A plan for every size herd*

OFFICIAL DHI

OWNER SAMPLER

WEIGH-A-DAY-A-MONTH

AGRICULTURAL RESEARCH SERVICE, U. S. DEPARTMENT OF AGRICULTURE

Dairy-Herd-Improvement Letter

ARS-44-229

(Vol. 47, No. 4)

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## DHIA PARTICIPATION REPORT, JANUARY 1, 1971 1/

The National Cooperative Dairy Herd Improvement Program is a composite of the Official DHI (including DHIR), Owner-Sampler, Weigh-a-Day-a-Month (WADAM), and other unofficial dairy recordkeeping plans.

On January 1, 1971, the program included 58,512 herds with 3,191,457 cows, which is 25.6 percent of the Nation's dairy cow population. The cows were in 1,274 associations with 2,201 supervisors. Official DHI included 33,996 herds and 2,218,402 cows for an average of 65.3 cows per herd; DHIR included 3,724 herds and 240,405 cows, averaging 64.6 cows per herd; Owner-Sampler included 22,581 herds and 836,751 cows for an average of 37.1 cows per herd. Similar figures for WADAM were 628 herds, 49,913 cows, and 79.5 cows per herd. The other unofficial plans included 1,307 herds and 86,391 cows for an average of 66.1 cows per herd.

The percentage of the Nation's cows enrolled in Official DHI was 17.8, up from 16.7 percent in 1970. DHIR enrolled 1.9

1/ Prepared by G. J. King, F. N. Dickinson, C. A. Rampendahl, J. J. Corbin, and A. H. Kienast from data supplied by the State Extension Dairymen advising the Dairy Herd Improvement Program in the States.

Issued June 1971

percent of the Nation's cows, the same percentage as in 1970. Owner-Sampler cows increased from 6.6 to 6.7 percent of the Nation's cows in 1970, and WADAM remained at 0.4 percent. Enrollment in other unofficial plans comprised 0.7 percent of the Nation's cows, a decrease of 0.2 percent from 1970.

Details of participation in the various recordkeeping plans are given in tables 4 through 8.

Table 1 is a listing of States that have State dairy herd improvement associations and those that hold membership in the National Dairy Herd Improvement Association (NDHIA), Inc. These are also shown on the map on page 5.

Establishing a State DHIA is important to the development and growth of sound dairy recordkeeping programs within a State. In 1970, two more State DHI Associations were formed - one in Illinois and the other in Maine. Twenty-six States were members of NDHIA, Inc. on January 1, 1971. Four of these - Kansas, Minnesota, New Hampshire, and Ohio - joined in 1970.

The numbers of counties, associations, and supervisors in the Program have also been included in table 1. The number of counties includes only those that have the Official DHI, Owner-Sampler, and/or WADAM plans. Information on additional counties having only other unofficial plans is not available.

Table 2 lists the percentages of all milk cows included in all recordkeeping plans. The map on page 6 shows graphically the data in table 2. The data show Hawaii and Arizona as the States with more than 50 percent of their cows on test. Four States follow closely with between 40 and 49.9 percent of their cows on test; 17 States (the largest group) have between 20 and 29.9 percent of their cows on test; and 3 States still have less than 10 percent of their cows on test.

Table 3 summarizes the data for participation in each recordkeeping plan. Footnote 1 gives the titles of the unofficial plans other than Owner-Sampler and WADAM. The titles of these plans by States are listed in table 8, footnotes 4 through 9. Table 3, footnote 4, lists 3,098 herds and 107,961 cows on unofficial recordkeeping plans not under the auspices

of the National Program. Some of these plans are Vocational Agriculture, Black Book (hand calculated), and private testing.

Figures for Official DHI in table 4 indicate that there are fewer herds and more cows on test than a year ago. Thus, average herd size increased by 3.4 cows. This increase--to 65.3 cows per herd--is more than double the herd size in 1953.

Table 5 lists herds and cows on DHIR. These are included in Official DHI as the various plans are tabulated, but are listed in table 5 to show relative numbers and percentages that DHIR recordkeeping comprises. The number of herds decreased, while the number of cows increased in 1970 over 1969.

The figures for Owner-Sampler recordkeeping detailed by State in table 6 show decreases in herds and cows from 1969.

The figures for WADAM recordkeeping presented in table 7 show that herds on test continued to decrease, but cows on test rose again by January 1, 1971. The cows per herd thus increased from 67.6 on January 1, 1970, to 79.5 on January 1, 1971.

Table 8 includes the same details for participation in other unofficial plans as tables 4 through 7 do for Official DHI, Owner-Sampler, and WADAM. The data show that there are almost twice as many herds and more cows on other unofficial plans than on WADAM.

Table 9 shows percentages of herds and cows that are computer-processed. Recordkeeping for 29 States is now 100 percent computer-processed.

Table 10 is a history of Official DHI testing in the United States since 1940. Data for the years from its beginning in 1906 through 1939 are included in table 10 of the May 1970 Dairy-Herd-Improvement Letter, ARS 44-215. The given number of associations and supervisors are for the total National Program.

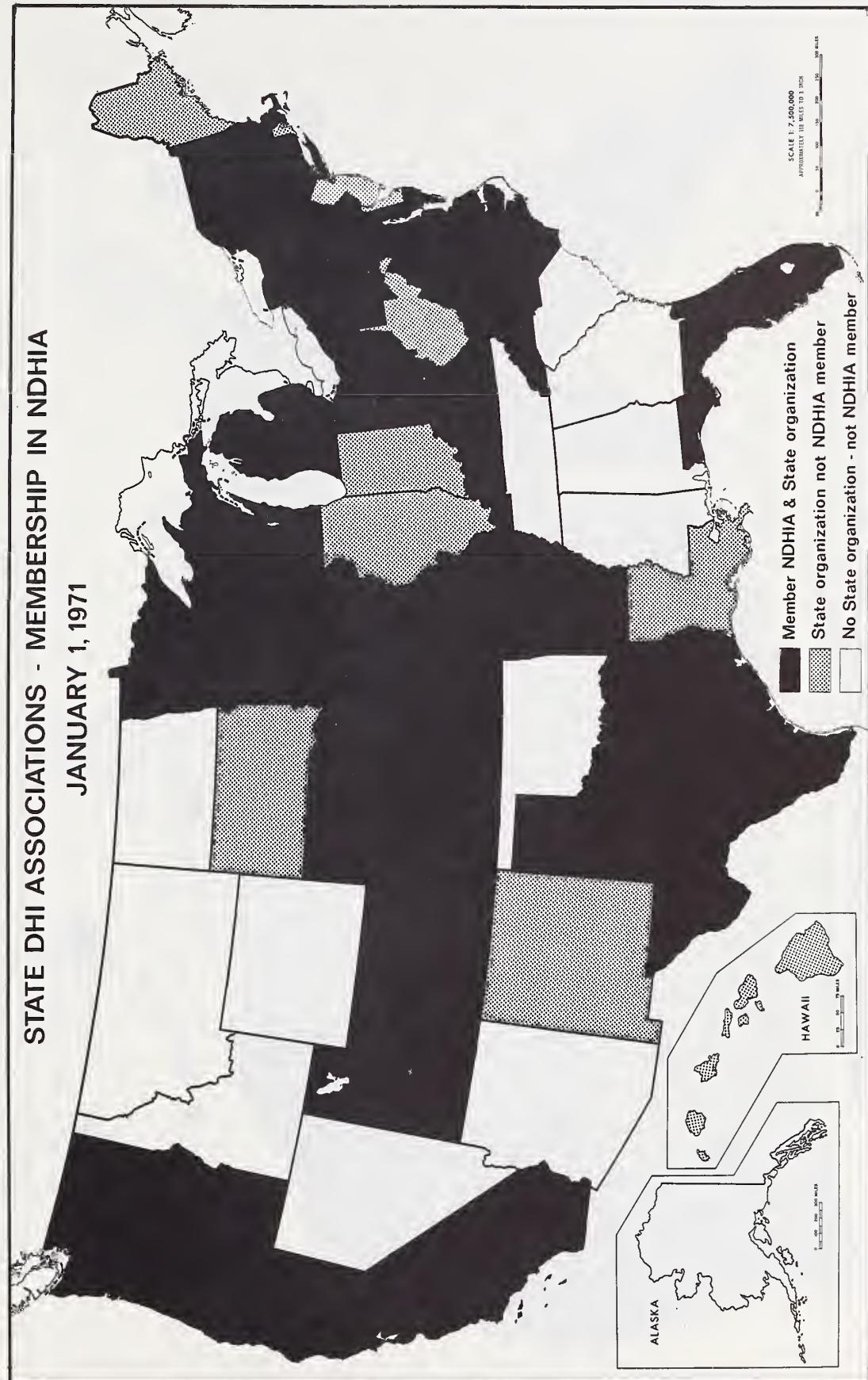
Table 11 is a history of the Owner-Sampler recordkeeping plan. It begins with 1956, when the first January 1 tabulation was made.

Table 12 is a history of WADAM and other unofficial recordkeeping plans since January 1, 1957, just after the beginning of WADAM testing.

Table 13 is the listing of counties that have 40 percent or more of their dairy cows included in the National Cooperative DHI Program. The percentage of counties having 25 percent or more of their dairy cows on test is given in parentheses at the end of each State's listing.

The comparison of production for cows on Official DHI test and all milk cows in the U.S., usually included in this Letter, was a part of the March 1971 Dairy-Herd-Improvement Letter, ARS 44-226 in a different form.

**STATE DHI ASSOCIATIONS - MEMBERSHIP IN NDHIA  
JANUARY 1, 1971**



NATIONAL COOPERATIVE DAIRY HERD IMPROVEMENT PROGRAM  
PERCENTAGE OF COWS IN PROGRAM JANUARY 1, 1971

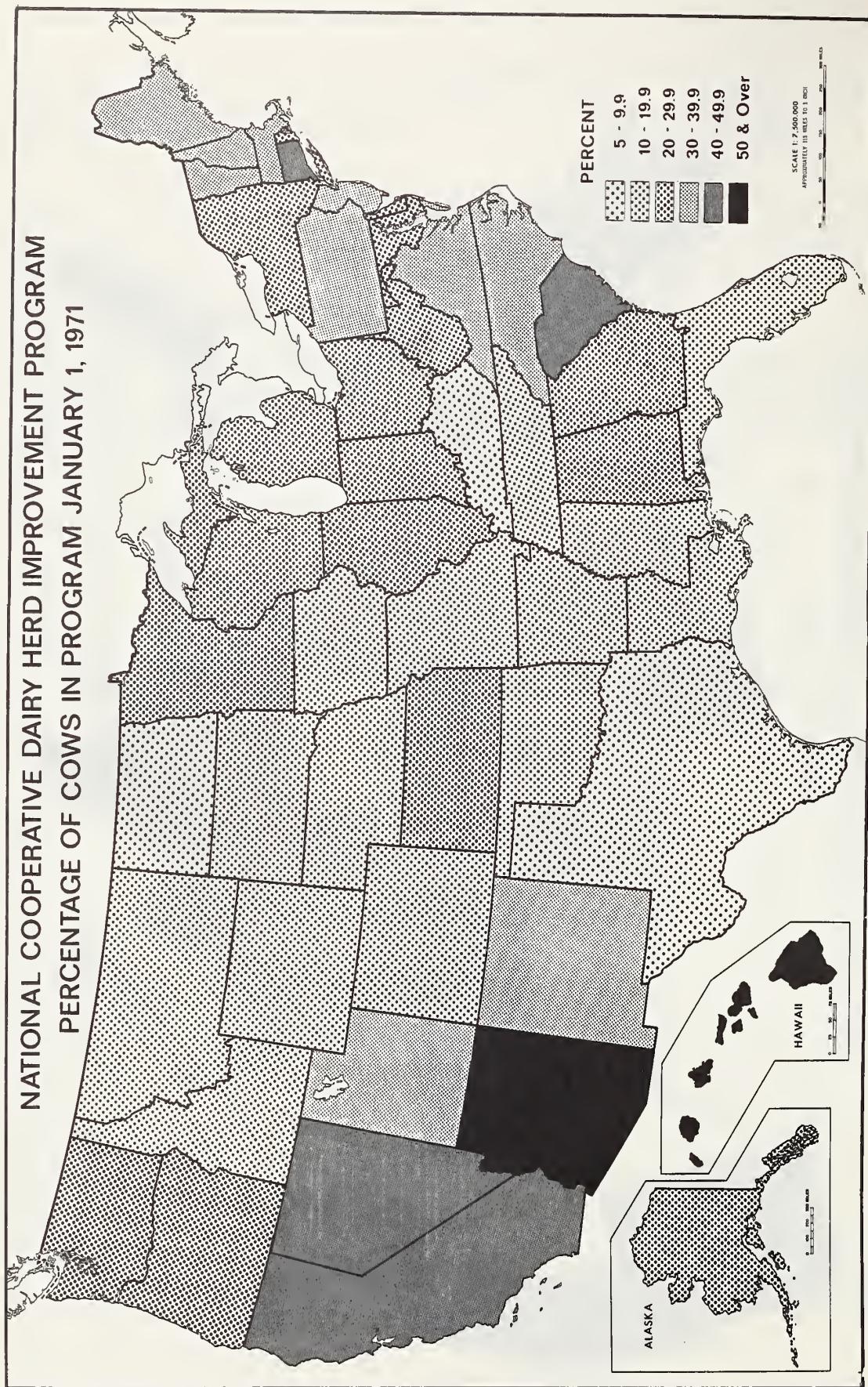


TABLE 1.--The National Cooperative Dairy Herd Improvement Program organization (January 1, 1971)

State	State DHIA organization	Member of NDHIA, Inc.	Counties that have at least one testing program	Associations	Supervisors
			Number	Number	Number
Alabama-----	No	No	51	21	22
Alaska-----	No	No	2	2	2
Arizona-----	No	No	5	4	8
Arkansas-----	Yes	Yes	21	14	16
California-----	Yes	Yes	44	27	101
Colorado-----	Yes	Yes	24	14	21
Connecticut-----	Yes	Yes	8	7	21
Delaware-----	Yes	No	3	3	3
Florida-----	Yes	Yes	35	11	15
Georgia-----	No	No	87	29	31
Hawaii-----	Yes	No	4	1	3
Idaho-----	No	No	29	26	27
Illinois-----	Yes	No	82	49	74
Indiana-----	Yes	No	76	48	57
Iowa-----	Yes	Yes	98	68	91
Kansas-----	Yes	Yes	87	57	60
Kentucky-----	Yes	Yes	70	36	36
Louisiana-----	Yes	No	33	25	28
Maine-----	Yes	No	16	13	25
Maryland-----	Yes	Yes	17	14	31
Massachusetts-----	Yes	Yes	11	10	22
Michigan-----	Yes	Yes	78	85	85
Minnesota-----	Yes	Yes	86	76	194
Mississippi-----	No	No	46	20	1/25
Missouri-----	Yes	Yes	83	38	60
Montana-----	No	No	14	6	7
Nebraska-----	Yes	Yes	60	32	37
Nevada-----	No	No	5	3	4
New Hampshire-----	Yes	Yes	9	9	15
New Jersey-----	Yes	No	10	6	17
New Mexico-----	Yes	No	10	3	7
New York-----	Yes	Yes	47	47	185
North Carolina-----	Yes	Yes	79	37	50
North Dakota-----	No	No	41	11	10
Ohio-----	Yes	Yes	83	69	125
Oklahoma-----	No	No	59	17	22
Oregon-----	Yes	Yes	25	13	17
Pennsylvania-----	Yes	Yes	67	60	175
Puerto Rico-----	Yes	No	33	1	5
Rhode Island-----	Yes	No	5	2	2
South Carolina-----	No	No	33	23	23
South Dakota-----	Yes	No	52	17	16
Tennessee-----	No	No	64	36	37
Texas-----	Yes	Yes	78	23	28
Utah-----	Yes	Yes	18	17	19
Vermont-----	Yes	Yes	14	27	52
Virginia-----	Yes	Yes	77	39	51
Washington-----	Yes	Yes	28	23	47
West Virginia-----	Yes	No	28	12	18
Wisconsin-----	Yes	Yes	70	39	166
Wyoming-----	No	No	7	4	8
The Nat'l. Coop. DHI Program-----	38	26	2,112	1,274	2,201

1/ Based on last report available (1-1-70).

TABLE 2.--Percentage of cows, by State, included in the program: Official DHI, Owner-Sampler, WADAM, and other unofficial plans

State	Rank	State	Rank
<u>Percent</u>		<u>Percent</u>	
Hawaii-----	66.1	Alaska-----	25.0
Arizona-----	55.5	Kansas-----	24.6
California-----	49.2	Illinois-----	24.2
Nevada-----	48.6	Rhode Island-----	24.2
South Carolina-----	45.4	Alabama-----	23.8
Connecticut-----	40.0	Indiana-----	23.6
New Hampshire-----	38.7	West Virginia-----	21.1
New Mexico-----	38.1	Minnesota-----	20.1
Pennsylvania-----	33.8	Colorado-----	19.9
Massachusetts-----	32.9	Iowa-----	19.3
North Carolina-----	32.3	Oklahoma-----	18.7
Maine-----	31.9	Montana-----	16.8
Vermont-----	31.8	Florida-----	16.7
Utah-----	31.1	Idaho-----	16.4
Virginia-----	30.7	Louisiana-----	14.6
New Jersey-----	30.4	Mississippi-----	13.8
Georgia-----	29.5	Nebraska-----	13.8
Delaware-----	29.2	Wyoming-----	12.5
Washington-----	29.0	Arkansas-----	12.4
Wisconsin-----	28.9	Missouri-----	12.2
Maryland-----	28.4	South Dakota-----	11.9
New York-----	28.3	Tennessee-----	11.8
Oregon-----	27.9	Texas-----	9.7
Michigan-----	27.4	Kentucky-----	8.2
Ohio-----	27.4	North Dakota-----	5.4
		United States-----	25.6

TABLE 3.--The National Cooperative Dairy Herd Improvement Program and other testing programs (January 1, 1971)

State	Official DHI (incl. DHIR)		Owner-Sampler		Weigh-a-Day -a-Month		Other unofficial plans <sup>1/</sup>		All testing programs		Milk cows in U.S.	
	Herds	Cows	Herds	Cows	Herds	Cows	Herds	Cows	Herds	Cows	Total <sup>2/</sup>	In all plans
	Number	Number	Number	Number	Number	Number	Number	Number	Number	Number	Thousands	Percent
Ala-----	275	30,635	7	1,013	3	243	-----	-----	285	31,891	134	23.8
Alaska---	3	80	8	345	-----	-----	-----	-----	11	425	1.7	25.0
Ariz-----	66	16,125	40	12,709	-----	-----	-----	-----	106	28,834	52	55.5
Ark-----	105	8,017	83	3,848	3	115	-----	-----	191	11,980	97	12.4
Calif-----	1,565	372,993	68	4,792	-----	-----	71	18,660	1,704	396,445	806	49.2
Colo-----	248	18,638	16	876	-----	-----	7	561	271	20,075	101	19.9
Conn-----	345	22,742	54	2,152	4	321	-----	-----	403	25,215	63	40.0
Del-----	78	4,290	4	86	-----	-----	-----	-----	82	4,376	15	29.2
Fla-----	80	20,703	-----	-----	19	4,886	15	6,730	114	32,319	193	16.7
Ga-----	342	34,302	4	382	59	8,676	-----	-----	405	43,360	147	29.5
Hawai-----	12	4,266	2	880	3	3,448	-----	-----	17	8,594	13	66.1
Idaho-----	434	25,033	21	973	-----	-----	-----	-----	455	26,006	159	16.4
Ill-----	1,177	56,071	306	10,473	175	6,405	-----	-----	1,658	72,949	301	24.2
Ind-----	904	41,386	3/364	3/13,808	-----	-----	-----	-----	1,268	55,194	234	23.6
Iowa-----	1,628	62,182	1,070	31,582	3	80	-----	-----	2,701	93,844	486	19.3
Kans-----	796	42,862	135	5,900	-----	-----	-----	-----	931	48,762	198	24.6
Ky-----	491	25,897	26	1,174	14	731	-----	-----	531	27,802	340	8.2
La-----	125	11,965	3	329	161	12,303	-----	-----	289	24,597	169	14.6
Maine-----	373	17,978	79	3,061	-----	-----	-----	-----	452	21,039	66	31.9
Md-----	602	43,647	69	3,187	-----	-----	11	810	682	47,644	168	28.4
Mass-----	378	19,028	49	1,710	-----	-----	-----	-----	427	20,738	63	32.9
Mich-----	1,367	81,141	984	41,464	-----	-----	83	3,884	2,434	126,489	462	27.4
Minn-----	3,212	125,403	2,292	71,545	-----	-----	-----	-----	5,504	196,948	981	20.1
Miss-----	303	25,461	1	192	8	699	-----	-----	312	26,352	191	13.8
Mo-----	588	33,802	200	8,925	-----	-----	-----	-----	788	42,727	351	12.2
Mont-----	74	5,410	18	1,633	-----	-----	-----	-----	92	7,043	42	16.8
Nebr-----	455	22,104	75	3,274	12	409	-----	-----	542	25,787	187	13.8
Nev-----	34	4,395	8	2,407	-----	-----	-----	-----	42	6,802	14	48.6
N. H-----	196	10,912	66	2,539	12	495	-----	-----	274	13,946	36	38.7
N. J-----	300	19,662	20	1,032	2	10	-----	-----	322	20,704	68	30.4
N. Mex-----	34	9,754	4	3,589	-----	-----	-----	-----	38	13,343	35	38.1
N. Y-----	3,458	196,409	1,986	82,049	-----	-----	129	9,438	5,573	287,896	1,018	28.3
N. C-----	749	56,557	37	1,992	26	1,202	-----	-----	812	59,751	185	32.3
N. Dak-----	134	5,673	19	802	20	855	-----	-----	173	7,330	137	5.4
Ohio-----	1,843	86,908	1,081	36,010	-----	-----	-----	-----	2,924	122,918	449	27.4
Okla-----	347	24,311	52	2,950	-----	-----	-----	-----	399	27,261	146	18.7
Oreg-----	327	25,900	70	3,900	-----	-----	-----	-----	397	29,800	107	27.9
Pa-----	3,182	150,330	1,222	44,171	-----	-----	974	44,040	5,378	238,541	705	33.8
P. R-----	34	7,036	-----	-----	23	5,485	-----	-----	57	12,521	-----	-----
R. I-----	33	1,697	-----	-----	-----	-----	-----	-----	33	1,697	7	24.2
S. C-----	267	28,886	3	170	7	428	-----	-----	277	29,484	65	45.4
S. Dak-----	167	7,181	395	13,850	-----	-----	-----	-----	562	21,031	177	11.9
Tenn-----	497	33,825	6	192	33	1,532	-----	-----	536	35,549	302	11.8
Tex-----	318	30,815	31	2,823	8	656	-----	-----	357	34,294	355	9.7
Utah-----	386	24,394	20	770	-----	-----	-----	-----	406	25,164	81	31.1
Vt-----	713	40,150	535	25,139	-----	-----	-----	-----	1,248	65,289	205	31.8
Va-----	893	65,324	50	2,107	5	144	-----	-----	948	67,575	220	30.7
Wash-----	644	52,161	24	1,339	-----	-----	17	2,268	685	55,768	192	29.0
W. Va-----	186	10,515	22	800	27	736	-----	-----	235	12,051	57	21.1
Wis-----	3,205	151,662	10,947	381,512	-----	-----	-----	-----	14,152	533,174	1,846	28.9
Wyo-----	23	1,784	5	295	1	54	-----	-----	29	2,133	17	12.5
Total or percent: The Nat'l. Coop. DHI Program--	33,996	2,218,402	22,581	836,751	628	49,913	1,307	86,391	58,512	3,191,457	12,445	25.6
All test- ing Pro- grams 4/-	-----	-----	-----	-----	-----	-----	-----	-----	61,610	3,299,418	-----	26.5

1/ Unofficial plans operating under the auspices of the National Cooperative Dairy Herd Improvement Program such as Commercial, Breed Average Test, Tri-Monthly Test, Milk Only Record, Supervised AM-PM, and Tester Sampler.

2/ Preliminary figures for average numbers of milk cows and heifers that have calved January 1, 1971, excluding heifers not yet fresh; estimated by the Statistical Reporting Service (USDA).

3/ Based on last report available (1-1-70).

4/ The following number of herds and cows are on other testing programs such as Vocational Agriculture, private, Black Book (hand calculated), etc., by State: Arizona, 34 herds, 7,550 cows; Colorado, 24 herds, 2,215 cows; Idaho, 2 herds, 161 cows; Iowa, 240 herds, 4,550 cows; New York, 10 herds, 423 cows; North Dakota, 31 herds, 1,062 cows; Wisconsin, 2,757 herds, 92,000 cows. Total = 3,098 herds, 107,961 cows.

TABLE 4.--Official DHI recordkeeping in the United States (January 1, 1971)

State	Official DHI (incl. DHIR)			Change from 1-1-70	Av. cows per herd	All milk cows 1/	Official DHI cows as percent of all milk cows 2/	Dairy Herd Improvement Registry 3/	
	Counties	Herds	Cows					Herds	Cows
	Number	Number	Number	Number	Thousands	Percent	Number	Number	
Ala-----	4/51	275	30,635	-2,443	111.4	134	22.9	15	1,809
Alaska-----	2	3	80	-113	26.7	1.7	4.7	2	55
Ariz-----	5	66	16,125	+2,340	244.3	52	31.0	19	5,433
Ark-----	16	105	8,017	+2,606	76.4	97	8.3	13	520
Calif-----	44	1,565	372,993	+48,430	238.3	806	46.3	99	19,675
Colo-----	24	248	18,638	+467	75.2	101	18.5	31	1,781
Conn-----	8	345	22,742	-957	65.9	63	36.1	59	3,318
Del-----	3	78	4,290	-623	55.0	15	28.6	8	492
Fla-----	31	80	20,703	-1,532	258.8	193	10.7	8	1,445
Ga-----	84	342	34,302	+532	100.3	147	23.3	23	2,827
Hawaii-----	1	12	4,266	+92	355.5	13	32.8	--	---
Idaho-----	28	434	25,033	+131	57.7	159	15.7	32	1,583
Ill-----	79	1,177	56,071	-336	47.6	301	18.6	127	6,062
Ind-----	4/76	904	41,386	-6,295	45.8	234	17.7	164	7,317
Iowa-----	97	1,628	62,182	+646	38.2	486	12.8	189	6,981
Kans-----	86	796	42,862	+2,596	53.8	198	21.6	106	5,700
Ky-----	65	491	25,897	+667	52.7	340	7.6	48	2,400
La-----	25	125	11,965	+1,176	95.7	169	7.1	11	1,252
Maine-----	16	373	17,978	-555	48.2	66	27.2	55	2,982
Md-----	17	602	43,647	+1,451	72.5	168	26.0	78	6,918
Mass-----	11	378	19,028	-220	50.3	63	30.2	79	4,084
Mich-----	71	1,367	81,141	+1,465	59.4	462	17.6	131	9,447
Minn-----	86	3,212	125,403	+5,947	39.0	981	12.8	162	6,862
Miss-----	44	303	25,461	+2,563	84.0	191	13.3	28	2,475
Mo-----	80	588	33,802	+2,436	57.5	351	9.6	62	3,988
Mont-----	9	74	5,410	+182	73.1	42	12.9	12	783
Nebr-----	59	455	22,104	+2,104	48.6	187	11.8	46	3,263
Nev-----	5	34	4,395	+652	129.3	14	31.4	12	1,190
N. H-----	9	196	10,912	+293	55.7	36	30.3	38	2,241
N. J-----	10	300	19,662	-2,505	65.5	68	28.9	46	3,295
N. Mex-----	9	34	9,754	-1,887	286.9	35	27.9	11	3,273
N. Y-----	47	3,458	196,409	+3,152	56.8	1,018	19.3	305	17,565
N. C-----	78	749	56,557	+2,411	75.5	185	30.6	54	4,615
N. Dak-----	28	134	5,673	-340	42.3	137	4.1	16	729
Ohio-----	81	1,843	86,908	-1,608	47.2	449	19.4	347	17,759
Okla-----	57	347	24,311	+1,785	70.1	146	16.7	47	3,196
Oreg-----	25	327	25,900	+645	79.2	107	24.2	37	2,830
Pa-----	67	3,182	150,330	-163	47.2	705	21.3	203	11,320
P. R-----	25	34	7,036	+6,029	206.9	----	----	----	----
R. I-----	5	33	1,697	-155	51.4	7	24.2	16	678
S. C-----	33	267	28,886	+44	108.2	65	44.4	43	5,247
S. Dak-----	39	167	7,181	+1,581	43.0	177	4.1	22	875
Tenn-----	56	497	33,825	+2,462	68.1	302	11.2	44	3,308
Tex-----	73	318	30,815	+251	96.9	355	8.7	65	6,706
Utah-----	18	386	24,394	+3,264	63.2	81	30.1	24	1,449
Vt-----	14	713	40,150	+2,003	56.3	205	19.6	108	5,946
Va-----	74	893	65,324	+1,052	73.2	220	29.7	76	6,049
Wash-----	28	644	52,161	+2,738	81.0	192	27.2	95	7,366
W. Va-----	23	186	10,515	+300	56.5	57	18.4	20	1,401
Wis-----	68	3,205	151,662	+11,404	47.3	1,846	8.2	485	23,740
Wyo-----	7	23	1,784	+226	77.6	17	10.5	3	175
Total, average, or percent-----	1,997	33,996	2,218,402	+96,391	65.3	12,445	17.8	3,724	240,405

1/ Preliminary figures for average numbers of milk cows and heifers that have calved January 1, 1971, excluding heifers not yet fresh; estimated by the Statistical Reporting Service (USDA).

2/ Percentage of cows included in the Official DHI (including DHIR) recordkeeping plan.

3/ Included in count of Official DHI herds and cows.

4/ Based on last report available (1-1-70).

TABLE 5.--Dairy Herd Improvement Registry recordkeeping in the United States (January 1, 1971)

State	Dairy Herd Improvement Registry <sup>1/</sup>			Change from 1-1-70	Av. cows per herd	All milk cows <sup>2/</sup>	DHIR cows as pct. of all milk cows <sup>3/</sup>
	Counties	Herds	Cows				
	Number	Number	Number	Number	Number	Thousands	Percent
Alabama-----	9	15	1,809	+323	120.6	134	1.4
Alaska-----	2	2	55	+5	27.5	1.7	3.2
Arizona-----	2	19	5,433	+586	285.9	52	10.4
Arkansas-----	5	13	520	+35	40.0	97	0.5
California-----	24	99	19,675	+2,606	198.7	806	2.4
Colorado-----	11	31	1,781	-441	57.5	101	1.8
Connecticut-----	8	59	3,318	-725	56.2	63	5.3
Delaware-----	2	8	492	-6	61.5	15	3.3
Florida-----	6	8	1,445	+486	180.6	193	.7
Georgia-----	15	23	2,827	-314	122.9	147	1.9
Hawaii-----	--	--	--	--	--	13	--
Idaho-----	13	32	1,583	+41	49.5	159	1.0
Illinois-----	46	127	6,062	-62	47.7	301	2.0
Indiana-----	4/42	164	7,317	-1,457	44.6	234	3.1
Iowa-----	66	189	6,981	-575	36.9	486	1.4
Kansas-----	55	106	5,700	+494	53.8	198	2.9
Kentucky-----	35	48	2,400	+500	50.0	340	.7
Louisiana-----	4	11	1,252	+41	113.8	169	.7
Maine-----	13	55	2,982	-168	54.2	66	4.5
Maryland-----	13	78	6,918	-205	88.7	168	4.1
Massachusetts---	10	79	4,084	+264	51.7	63	6.5
Michigan-----	41	131	9,447	+1,832	72.1	462	2.0
Minnesota-----	55	162	6,862	-175	42.4	981	.7
Mississippi-----	15	28	2,475	+456	88.4	191	1.3
Missouri-----	30	62	3,988	-486	64.3	351	1.1
Montana-----	4	12	783	+69	65.3	42	1.9
Nebraska-----	23	46	3,263	+138	70.9	187	1.7
Nevada-----	5	12	1,190	+510	99.2	14	8.5
New Hampshire---	8	38	2,241	-213	59.0	36	6.2
New Jersey-----	10	46	3,295	-380	71.6	68	4.8
New Mexico-----	7	11	3,273	+372	297.5	35	9.4
New York-----	46	305	17,565	+24	57.6	1,018	1.7
North Carolina--	25	54	4,615	+512	85.5	185	2.5
North Dakota---	7	16	729	+129	45.6	137	.5
Ohio-----	4/68	347	17,759	-82	51.2	449	4.0
Oklahoma-----	19	47	3,196	+227	68.0	146	2.2
Oregon-----	15	37	2,830	-275	76.5	107	2.6
Pennsylvania---	4/49	203	11,320	-1,525	55.8	705	1.6
Puerto Rico---	--	--	--	--	--	--	--
Rhode Island---	3	16	678	-151	42.4	7	9.7
South Carolina--	16	43	5,247	-84	122.0	65	8.1
South Dakota---	17	22	875	-199	39.8	177	.5
Tennessee-----	21	44	3,308	+322	75.2	302	1.1
Texas-----	31	65	6,706	+800	103.2	355	1.9
Utah-----	7	24	1,449	+50	60.4	81	1.8
Vermont-----	13	108	5,946	-239	55.1	205	2.9
Virginia-----	35	76	6,049	-308	79.6	220	2.7
Washington-----	22	95	7,366	+886	77.5	192	3.8
West Virginia--	11	20	1,401	+178	70.1	57	2.5
Wisconsin-----	61	485	23,740	+727	48.9	1,846	1.3
Wyoming-----	3	3	175	+33	58.3	17	1.0
Total, average, or percent---	1,048	3,724	240,405	+4,576	64.6	12,445	1.9

<sup>1/</sup> Included in count of Official DHI herds and cows in tables 3, 4, and 9.<sup>2/</sup> Preliminary figures for average numbers of milk cows and heifers that have calved January 1, 1971, excluding heifers not yet fresh; estimated by the Statistical Reporting Service (USDA).<sup>3/</sup> Percentage of cows included in the Dairy Herd Improvement Registry recordkeeping plan.<sup>4/</sup> Based on last report available (1-1-70).

TABLE 6.--Owner-Sampler recordkeeping in the United States (January 1, 1971)

State	Owner-Sampler			Change from 1-1-70	Av. cows per herd	All milk cows 1/	O.-S. cows as pct. of all milk cows 2/
	Counties	Herd	Cows				
	Number	Number	Number	Number	Number	Thousands	Percent
Ala-----	7	7	1,013	+428	144.7	134	0.8
Alaska-----	1	8	345	+24	43.1	1.7	20.3
Ariz-----	1	40	12,709	+4,569	317.7	52	24.4
Ark-----	19	83	3,848	+712	46.4	97	4.0
Calif-----	13	68	4,792	-3,105	70.5	806	.6
Colo-----	12	16	876	-52	54.8	101	.9
Conn-----	8	54	2,152	-355	39.9	63	3.4
Del-----	2	4	86	-88	21.5	15	.6
Fla-----	--	--	-----	-10,434	-----	193	----
Ga-----	2	4	382	+28	95.5	147	.3
Hawaii-----	2	2	880	-476	440.0	13	6.8
Idaho-----	14	21	973	+373	46.3	159	.6
Ill-----	30	306	10,473	-506	34.2	301	3.5
Ind 3/-----	40	364	13,808	0	37.9	234	5.9
Iowa-----	85	1,070	31,582	-2,357	29.5	486	6.5
Kans-----	30	135	5,900	-109	43.7	198	3.0
Ky-----	15	26	1,174	-106	45.2	340	.3
La-----	3	3	329	+197	109.7	169	.2
Maine-----	13	79	3,061	-321	38.7	66	4.6
Md-----	11	69	3,187	-148	46.2	168	1.9
Mass-----	8	49	1,710	-342	34.9	63	2.7
Mich-----	71	984	41,464	-5,314	42.1	462	9.0
Minn-----	85	2,292	71,545	+6,573	31.2	981	7.3
Miss-----	1	1	192	-249	192.0	191	.1
Mo-----	49	200	8,925	+382	44.6	351	2.5
Mont-----	8	18	1,633	-156	90.7	42	3.9
Nebr-----	24	75	3,274	+974	43.7	187	1.8
Nev-----	3	8	2,407	+579	300.9	14	17.2
N. H-----	8	66	2,539	+422	38.5	36	7.1
N. J-----	8	20	1,032	-2,131	51.6	68	1.5
N. Mex-----	2	4	3,589	+1,320	897.3	35	10.3
N. Y-----	47	1,986	82,049	-5,093	41.3	1,018	8.1
N. C-----	17	37	1,992	+332	53.8	185	1.1
N. Dak-----	3	19	802	+102	42.2	137	.6
Ohio-----	3/71	1,081	36,010	+92	33.3	449	8.0
Okla-----	2	52	2,950	+90	56.7	146	2.0
Oreg-----	17	70	3,900	+880	55.7	107	3.6
Pa-----	66	1,222	44,171	+49	36.1	705	6.3
P. R-----	--	--	-----	-----	-----	-----	----
R. I-----	--	--	-----	-----	-----	7	----
S. C-----	2	3	170	-293	56.7	65	.3
S. Dak-----	52	395	13,850	+1,928	35.1	177	7.8
Tenn-----	6	6	192	+17	32.0	302	.1
Tex-----	14	31	2,823	+964	91.1	355	.8
Utah-----	6	20	770	-51	38.5	81	1.0
Vt-----	14	535	25,139	-542	47.0	205	12.3
Va-----	16	50	2,107	-200	42.1	220	1.0
Wash-----	14	24	1,339	+156	55.8	192	.7
W. Va-----	7	22	800	+59	36.4	57	1.4
Wis-----	70	10,947	381,512	+8,801	34.9	1,846	20.7
Wyo-----	2	5	295	-215	59.0	17	1.7
Total, average, or percent---	1,001	22,581	836,751	-2,592	37.1	12,445	6.7

1/ Preliminary figures for average numbers of milk cows and heifers that have calved January 1, 1971, excluding heifers not yet fresh; estimated by the Statistical Reporting Service (USDA).

2/ Percentage of cows included in the Owner-Sampler recordkeeping plan.

3/ Based on last report available (1-1-70).

TABLE 7.--Weigh-a-Day-a-Month recordkeeping in the United States (January 1, 1971)

State	Weigh-a-Day-a-Month			Change from 1-1-70	Av. cows per herd	All milk cows 1/	WADAM cows as percent of all milk cows 2/
	Counties	Herds	Cows				
	Number	Number	Number	Number	Number	Thousands	Percent
Ala-----	3	3	243	-33	81.0	134	0.2
Ark-----	2	3	115	-35	38.3	97	.1
Conn-----	1	4	321	+87	80.3	63	.5
Del-----	--	--	--	-56	----	15	----
Fla-----	8	19	4,886	+301	257.2	193	2.5
Ga-----	28	59	8,676	+1,977	147.1	147	5.9
Hawaii-----	2	3	3,448	+2,880	1,149.3	13	26.5
Ill-----	37	175	6,405	-486	36.6	301	2.1
Iowa-----	2	3	80	+15	26.7	486	----
Ky-----	14	14	731	-666	52.2	340	.2
La-----	22	161	12,303	+590	76.4	169	7.3
Miss-----	5	8	699	-1,188	87.4	191	.4
Nebr-----	9	12	409	-333	34.1	187	.2
N. H-----	3	12	495	+46	41.3	36	1.4
N. J-----	1	2	10	+10	5.0	68	----
N. C-----	17	26	1,202	-678	46.2	185	.6
N. Dak-----	15	20	855	+105	42.8	137	.6
P. R-----	12	23	5,485	+353	238.5	---	----
S. C-----	4	7	428	+154	61.1	65	.7
Tenn-----	19	33	1,532	-42	46.4	302	.5
Tex-----	4	8	656	-248	82.0	355	.2
Va-----	3	5	144	-88	28.8	220	.1
W. Va-----	13	27	736	-299	27.3	57	1.3
Wyo-----	1	1	54	+54	54.0	17	.3
Total, average,or percent---	225	628	49,913	+2,420	79.5	12,445	.4

1/ Preliminary figures for average numbers of milk cows and heifers that have calved January 1, 1971, excluding heifers not yet fresh; estimated by the Statistical Reporting Service (USDA). The total for all milk cows includes those States not listed.

2/ Percentage of cows included in the Weigh-a-Day-a-Month recordkeeping plan.

TABLE 8.--Other unofficial recordkeeping plans<sup>1/</sup> in the United States (January 1, 1971)

State	Other unofficial plans			Change from 1-1-70	Av. cows per herd	All milk cows 2/	Cows in unofficial plans as percent of all milk cows 3/
	Counties	Herds	Cows				
	Number	Number	Number	Number	Number	Thousands	Percent
Calif 4/-----	9	71	18,660	-38,233	262.8	806	2.3
Colo 4/-----	3	7	561	+418	80.1	101	0.6
Fla 5/-----	14	15	6,730	+6,730	448.7	193	3.5
Md 4/-----	4	11	810	+810	73.6	168	.5
Mich 6/-----	30	83	3,884	-1,446	46.8	462	.8
N. Y 7/-----	22	129	9,438	+2,797	73.2	1,018	.9
Oreg-----	--	--	--	-450	----	107	----
Pa 8/-----	58	974	44,040	+4,476	45.2	705	6.2
Wash 9/-----	7	17	2,268	-7	133.4	192	1.2
Total, average,or percent---	147	1,307	86,391	-24,905	66.1	12,445	.7

1/ Other unofficial plans operating under the auspices of the National Cooperative Dairy Herd Improvement Program.

2/ Preliminary figures for average numbers of milk cows and heifers that have calved January 1, 1971, excluding heifers not yet fresh; estimated by the Statistical Reporting Service (USDA). The total for all milk cows includes those in States not listed.

3/ Percentage of cows included in other unofficial recordkeeping plans.

4/ Commercial records.

5/ Breed Average Test records.

6/ Tri-Monthly Test records.

7/ Milk Only Record.

8/ Supervised AM-FM records.

9/ Tester-Sampler records.

TABLE 9.--Percent of herds and cows enrolled in State and regional computing centers (January 1, 1971)

State	Official DHI (incl. DHIR)		Owner-Sampler		Weigh-a-Day- a-Month		Other unofficial plans 1/		Machine processing as percent of total recordkeeping	
	Herds	Cows	Herds	Cows	Herds	Cows	Herds	Cows	Herds	Cows
Percent										
Ala-----	100.0	100.0	100.0	100.0	100.0	100.0	-----	-----	100.0	100.0
Alaska-----	100.0	100.0	100.0	100.0	-----	-----	-----	-----	100.0	100.0
Ariz-----	100.0	100.0	0	0	-----	-----	-----	-----	62.3	55.9
Ark-----	100.0	100.0	100.0	100.0	0	0	-----	-----	98.4	99.0
Calif-----	38.8	40.8	5.9	4.7	-----	-----	5.6	3.6	36.2	38.6
Colo-----	100.0	100.0	100.0	100.0	-----	-----	100.0	100.0	100.0	100.0
Conn-----	100.0	100.0	100.0	100.0	100.0	100.0	-----	-----	100.0	100.0
Del-----	100.0	100.0	100.0	100.0	-----	-----	-----	-----	100.0	100.0
Fla-----	100.0	100.0	-----	-----	0	0	100.0	100.0	83.3	84.9
Ga-----	100.0	100.0	100.0	100.0	89.8	92.3	-----	-----	98.5	98.5
Hawaii-----	100.0	100.0	100.0	100.0	100.0	100.0	-----	-----	100.0	100.0
Idaho-----	100.0	100.0	100.0	100.0	-----	-----	-----	-----	100.0	100.0
Ill-----	100.0	100.0	80.4	77.3	77.1	86.9	-----	-----	94.0	95.6
Ind-----	100.0	100.0	24.5	26.6	-----	-----	-----	-----	78.3	81.9
Iowa-----	100.0	100.0	95.0	95.2	0	0	-----	-----	97.9	98.3
Kans-----	100.0	100.0	100.0	100.0	-----	-----	-----	-----	100.0	100.0
Ky-----	100.0	100.0	100.0	100.0	100.0	100.0	-----	-----	100.0	100.0
La-----	100.0	100.0	100.0	100.0	100.0	100.0	-----	-----	100.0	100.0
Maine-----	100.0	100.0	100.0	100.0	-----	-----	-----	-----	100.0	100.0
Md-----	100.0	100.0	100.0	100.0	-----	-----	100.0	100.0	100.0	100.0
Mass-----	100.0	100.0	95.9	96.5	-----	-----	-----	-----	99.5	99.7
Mich-----	100.0	100.0	100.0	100.0	-----	-----	100.0	100.0	100.0	100.0
Minn-----	100.0	100.0	100.0	100.0	-----	-----	-----	-----	100.0	100.0
Miss-----	100.0	100.0	100.0	100.0	100.0	100.0	-----	-----	100.0	100.0
Mo-----	100.0	100.0	100.0	100.0	-----	-----	-----	-----	100.0	100.0
Mont-----	100.0	100.0	100.0	100.0	-----	-----	-----	-----	100.0	100.0
Nebr-----	100.0	100.0	100.0	100.0	0	0	-----	-----	97.8	98.4
Nev-----	100.0	100.0	87.5	83.4	-----	-----	-----	-----	97.6	94.1
N. H-----	100.0	100.0	80.3	78.5	100.0	100.0	-----	-----	95.3	96.1
N. J-----	100.0	100.0	100.0	100.0	100.0	100.0	-----	-----	100.0	100.0
N. Mex-----	100.0	100.0	25.0	32.7	-----	-----	-----	-----	92.1	81.9
N. Y-----	100.0	100.0	99.8	99.8	-----	-----	100.0	100.0	99.9	99.9
N. C-----	100.0	100.0	100.0	100.0	100.0	100.0	-----	-----	100.0	100.0
N. Dak-----	100.0	100.0	73.7	68.1	50.0	36.6	-----	-----	91.3	89.1
Ohio-----	100.0	100.0	42.0	45.6	-----	-----	-----	-----	78.6	84.1
Okla-----	100.0	100.0	100.0	100.0	-----	-----	-----	-----	100.0	100.0
Oreg-----	100.0	100.0	100.0	100.0	-----	-----	-----	-----	100.0	100.0
Pa-----	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
P. R-----	100.0	100.0	-----	-----	100.0	100.0	-----	-----	100.0	100.0
R. I-----	100.0	100.0	-----	-----	-----	-----	-----	-----	100.0	100.0
S. C-----	100.0	100.0	100.0	100.0	42.9	55.4	-----	-----	98.6	99.4
S. Dak-----	100.0	100.0	93.9	92.1	-----	-----	-----	-----	95.7	94.8
Tenn-----	100.0	100.0	100.0	100.0	33.3	38.4	-----	-----	95.9	97.3
Tex-----	100.0	100.0	100.0	100.0	100.0	100.0	-----	-----	100.0	100.0
Utah-----	100.0	100.0	100.0	100.0	-----	-----	-----	-----	100.0	100.0
Vt-----	100.0	100.0	40.2	36.5	-----	-----	-----	-----	74.4	75.5
Va-----	100.0	100.0	100.0	100.0	100.0	100.0	-----	-----	100.0	100.0
Wash-----	100.0	100.0	100.0	100.0	-----	-----	100.0	100.0	100.0	100.0
W. Va-----	100.0	100.0	100.0	100.0	0	0	-----	-----	88.5	93.9
Wis-----	100.0	100.0	90.8	90.7	-----	-----	-----	-----	92.9	93.4
Wyo-----	100.0	100.0	100.0	100.0	100.0	100.0	-----	-----	100.0	100.0
U.S. percent-	97.2	90.0	89.0	87.2	76.8	81.1	94.9	79.2	93.7	88.9

1/ Other unofficial plans operating under the auspices of the National Cooperative Dairy Herd Improvement Program. See table 8 for names of plans by State.

TABLE 10.--Status of the Official Dairy Herd Improvement Plan in the United States (1940-1971, inclusive) 1/

Year	Associations 2/	Supervisors 2/	Official DHIA Plan								Percent of cows on test: all plans		
			Herds	Cows	Cows per herd	Pct. of U.S. cows	Average production						
							Herds reported	Cows reported	Milk	Milk fat	Milk fat	U.S. cows 3/	On test
No.	No.	No.	No.	No.	No.	Pct.	No.	No.	Lb.	Pct.	Lb.	Thous.	Pct.
1940----	1,300	----	27,948	676,141	24.2	2.91	----	545,382	8,133	4.07	331	4/23,273	2.91
1941----	1,383	----	31,381	763,502	24.3	3.23	----	591,103	8,225	4.07	335	23,671	3.23
1942----	1,421	----	32,957	816,117	24.8	3.36	----	514,758	8,323	4.07	339	24,288	3.36
1943----	1,057	----	24,155	616,972	25.5	2.47	----	375,914	8,325	4.06	338	25,027	2.47
1944----	954	----	20,825	561,587	27.0	2.21	----	383,337	8,296	4.05	336	25,451	2.21
1945----	949	----	21,254	577,200	27.2	2.25	----	384,360	8,592	4.03	346	25,597	2.25
1946----	1,124	----	23,331	627,878	27.0	2.51	----	413,554	8,635	4.04	349	25,033	2.51
1947----	1,426	----	28,812	775,546	26.9	3.22	----	533,061	8,638	4.03	348	24,089	3.22
1948----	1,668	----	33,274	886,129	26.6	3.80	----	620,385	8,675	4.03	350	23,329	3.80
1949----	1,787	----	35,851	943,939	26.3	4.23	----	729,150	8,907	4.03	359	22,336	4.23
1950----	1,973	----	40,100	1,088,872	27.2	4.94	----	836,922	9,172	4.03	370	22,024	4.94
1951----	2,143	----	42,949	1,186,615	27.6	5.41	----	885,859	9,195	4.02	370	21,944	5.41
1952----	2,109	----	40,105	1,166,297	29.1	5.42	----	928,376	9,192	3.98	366	21,505	5.42
1953----	2,151	----	40,983	1,226,588	29.9	5.75	----	1,020,326	9,253	3.98	368	21,338	5.75
1954----	2,175	----	41,254	1,311,698	31.8	6.05	----	1,079,557	9,363	3.97	372	21,691	6.05
1955----	2,288	----	41,240	1,333,866	32.3	6.18	----	1,175,378	9,502	3.95	375	21,581	6.18
1956----	2,266	----	40,984	1,406,306	34.4	6.68	----	1,229,971	9,713	3.94	383	5/21,044	8.46
1957 6/	1,700	2,310	41,638	1,479,799	35.5	7.22	----	1,256,129	9,894	3.93	389	7/20,501	9.30
1958----	1,544	2,293	39,985	1,548,884	38.7	7.83	----	1,345,750	10,068	3.91	394	19,774	10.71
1959----	1,500	2,337	40,284	1,607,538	39.9	8.59	----	1,406,665	10,327	3.88	401	18,711	11.93
1960----	1,509	2,397	41,293	1,746,752	42.3	9.76	----	1,343,725	10,561	3.87	409	17,901	13.63
1961----	1,395	2,448	42,558	1,867,469	43.9	10.66	28,649	1,280,785	10,796	3.87	418	17,515	14.81
1962----	1,436	2,472	42,034	1,958,355	46.6	11.36	32,794	1,531,826	11,032	3.86	426	17,243	15.82
1963----	1,441	2,516	41,937	2,006,534	47.8	11.91	35,378	1,674,803	11,286	3.85	434	16,842	16.53
1964----	1,420	2,474	40,670	2,010,144	49.4	12.36	35,689	1,746,475	11,685	3.83	447	16,260	17.36
1965----	1,424	2,439	40,075	2,087,581	52.1	13.32	35,604	1,821,252	11,976	3.82	457	15,677	18.90
1966----	1,418	2,378	38,879	2,058,592	52.9	13.77	34,886	1,852,533	12,127	3.81	462	14,954	19.76
1967----	1,344	2,319	37,683	2,098,919	55.7	15.22	34,515	1,890,024	12,307	3.80	468	8/13,793	21.59
1968----	1,318	2,304	36,869	2,131,929	57.8	16.06	33,560	1,924,200	12,397	3.80	471	13,273	22.82
1969----	1,289	2,250	35,617	2,138,953	60.1	16.65	33,130	1,959,647	12,553	3.79	476	12,847	23.55
1970----	1,267	2,225	34,308	2,122,011	61.9	16.87	31,138	1,937,390	12,750	3.79	483	9/12,578	24.81
1971----	1,274	2,201	33,996	2,218,402	65.3	17.83	-----	-----	-----	-----	483	12,445	25.64

1/ Data of the status report for the years 1906-1939 are included in table 10 of the May 1970 Dairy-Herd-Improvement Letter, ARS 44-215.

2/ Number of associations and supervisors include all plans.

3/ Estimated by the Statistical Reporting Service (USDA).

4/ For 1940 through 1966, average number of milk cows on farms during previous year, excluding heifers not yet fresh.

5/ Owner-Sampler testing began in 1956.

6/ Prior to 1957, associations were counted on the basis of supervisor circuits.

7/ Weigh-a-Day-a-Month testing began in 1957.

8/ For 1967 through 1969, average number of milk cows on farms in December of previous year, excluding heifers not yet fresh.

Cows on other official plans were first counted in 1970.

TABLE 11.--Status of the Owner-Sampler plan in the National Cooperative Dairy Herd Improvement Program (1956-1971) 1/

Year	Owner-Sampler plan									
	Herds	Cows	Cows per herd	Pct. of U.S. cows	Average production					
					Herds included	Cows included	Milk	Milk fat	Milk fat	
	No.	No.	No.	Pct.	No.	No.	Lb.	Pct.	Lb.	
1956----	17,110	374,479	21.9	1.78	-----	-----	-----	-----	-----	
1957----	20,778	405,090	19.5	1.98	-----	-----	-----	-----	-----	
1958----	21,269	490,001	23.0	2.48	-----	-----	-----	-----	-----	
1959----	22,807	549,916	24.1	2.94	-----	-----	-----	-----	-----	
1960----	24,274	615,899	25.4	3.44	-----	-----	-----	-----	-----	
1961----	24,498	655,885	26.8	3.74	-----	-----	-----	-----	-----	
1962----	24,954	698,302	28.0	4.05	-----	-----	-----	-----	-----	
1963----	25,376	726,478	28.6	4.31	14,761	423,545	10,606	3.73	396	
1964----	25,598	752,229	29.4	4.63	13,574	385,493	10,885	3.71	404	
1965----	26,604	818,406	30.8	5.22	18,409	559,608	11,402	3.71	423	
1966----	26,259	839,838	32.0	5.62	19,172	598,133	11,472	3.70	425	
1967----	25,439	825,127	32.4	5.98	17,912	575,816	11,607	3.72	432	
1968----	25,143	847,485	33.7	6.39	17,318	592,647	11,847	3.72	441	
1969----	24,359	842,330	34.6	6.56	17,908	614,939	11,932	3.72	444	
1970----	23,281	839,343	36.1	6.67	16,971	611,819	12,185	3.72	453	
1971----	22,581	836,751	37.1	6.72	-----	-----	-----	-----	---	

1/ Tabulation of the Owner-Sampler plan began in 1956.

TABLE 12.--Status of plans other than Official DHI or Owner-Sampler in the National Cooperative Dairy Herd Improvement Program (1957-1971) 1/

Year	Weigh-a-Day-a-Month plan					Other unofficial plans				
	Herds	Cows	Cows per herd	Pct. of U.S. cows	Herds	Cows	Cows per herd	Pct. of U.S. cows		
								No.	Pct.	
	No.	No.	No.	Pct.	No.	No.	No.	Pct.	No.	Pct.
1957----	1,174	21,297	18.1	0.10	-----	-----	-----	-----	-----	-----
1958----	3,629	79,489	21.9	.40	-----	-----	-----	-----	-----	-----
1959----	2,998	74,814	25.0	.40	-----	-----	-----	-----	-----	-----
1960----	3,119	76,392	24.5	.43	-----	-----	-----	-----	-----	-----
1961----	2,363	70,847	30.0	.40	-----	-----	-----	-----	-----	-----
1962----	1,936	70,617	36.5	.41	-----	-----	-----	-----	-----	-----
1963----	1,500	50,492	33.7	.30	-----	-----	-----	-----	-----	-----
1964----	1,396	60,149	43.1	.37	-----	-----	-----	-----	-----	-----
1965----	1,229	56,570	46.0	.36	-----	-----	-----	-----	-----	-----
1966----	1,160	56,957	49.1	.38	-----	-----	-----	-----	-----	-----
1967----	1,001	53,429	53.4	.39	-----	-----	-----	-----	-----	-----
1968----	867	48,853	56.3	.37	-----	-----	-----	-----	-----	-----
1969----	708	44,131	62.3	.34	-----	-----	-----	-----	-----	-----
1970----	703	47,493	67.6	.38	1,337	111,296	83.2	0.88	-----	-----
1971----	628	49,913	79.5	.40	1,307	86,391	66.1	.69	-----	-----

1/ Tabulation of the Weigh-a-Day-a-Month plan began in 1957; tabulation of other unofficial plans operating under the auspices of the National Cooperative Dairy Herd Improvement Program began in 1970.

TABLE 13.--Counties, by State, with 40 percent or more cows included in the National Cooperative Dairy Herd Improvement Program--January 1, 1971  
(Numerals in parentheses at the end of county listing show the percentage of the States' counties that have 25 percent or more of their cows on test.)

State and county	Cows enrolled in DHIA plans	State and county	Cows enrolled in DHIA plans	State and county	Cows enrolled in DHIA plans
	Percent		Percent		Percent
ALABAMA		DELAWARE		IOWA (contd.)	
Elmore-----	63	Sussex-----	55	Story-----	41
Etowah-----	60	(67%)		Franklin-----	40
Escambia-----	57			(28%)	
Cherokee-----	53	FLORIDA		KANSAS	
Henry-----	49	Seminole-----	93	Harper-----	59
Russell-----	45	St. John-----	93	Harvey-----	58
St. Clair-----	41	Putnam-----	87	Saline-----	54
Blount-----	40	Citrus-----	82	Wallace-----	53
(27%)		Sumter-----	69	Logan-----	49
ALASKA		Jefferson-----	68	Pawnee-----	49
(25%)		Pinellas-----	66	Meade-----	43
ARIZONA		Union-----	62	Rice-----	41
Pima-----	99	Indian River-----	57	(27%)	
Pinal-----	98	Gilchrist-----	54	LOUISIANA	
Cochise-----	85	Orange-----	53	Natchitoches-----	100
Graham-----	75	Jackson-----	48	Rapides-----	59
Maricopa-----	65	Manatee-----	41	Morehouse-----	54
(36%)		(31%)		Franklin-----	50
ARKANSAS		GEORGIA		Quachita-----	48
Pope-----	80	Dooly-----	95	Beauregard-----	42
Miller-----	60	Peach-----	90	Richland-----	41
Faulkner-----	50	Houston-----	88	(25%)	
(8%)		Macon-----	88	MAINE	
CALIFORNIA		Lamar-----	85	Oxford-----	49
Alameda-----	100	McDuffie-----	84	Twin-----	43
San Mateo-----	100	Mitchell-----	79	Cumberland-----	40
Ventura-----	95	Newton-----	79	(44%)	
Tehama-----	91	Jeff Davis-----	75	MARYLAND	
Contra Costa-----	88	Jefferson-----	72	Dorchester-----	45
Sutter-----	74	Jones-----	71	(42%)	
Kern-----	73	Worth-----	69	MASSACHUSETTS	
Madera-----	73	Clarke-----	67	Barnstable-----	95
Marin-----	72	Burke-----	66	Hampshire-----	48
San Benito-----	72	Lee-----	65	Berkshire-----	45
San Luis Obispo-----	65	Spalding-----	65	(50%)	
San Joaquin-----	63	Thomas-----	62	MICHIGAN	
Fresno-----	61	Clayton-----	60	Kalamazoo-----	53
Monterey-----	61	Walton-----	59	Calhoun-----	52
Yuba-----	61	Stewart-----	58	Barry-----	49
Santa Barbara-----	58	Carroll-----	57	Hillsdale-----	45
Merced-----	57	Tift-----	57	Clinton-----	44
Tulare-----	57	Schley-----	54	Lenawee-----	42
Stanislaus-----	56	Brooks-----	51	Ingham-----	40
Sonoma-----	54	Douglas-----	50	Shiawassee-----	40
Yolo-----	53	Fayette-----	48	(33%)	
Riverside-----	52	Dougherty-----	47	MINNESOTA	
Colusa-----	50	Butts-----	46	Ramsey-----	96
Sacramento-----	48	Tattnall-----	46	(25%)	
Placer-----	45	Henry-----	45	MISSOURI	
San Bernardino-----	45	Jasper-----	45	Washington-----	67
San Diego-----	44	Richmond-----	42	Callaway-----	51
Santa Clara-----	44	(28%)		Jackson-----	47
Del Norte-----	43	HAWAII		(9%)	
Kings-----	43	Maui-----	77	ILLINOIS	
Nevada-----	43	Oahu-----	69	Lawrence-----	68
Santa Cruz-----	41	Kauai-----	47	Piatt-----	50
Humboldt-----	40	(80%)		Champaign-----	46
(69%)				Monroe-----	46
COLORADO				Bond-----	41
Rio Blanco-----	80			Effingham-----	41
Chaffee-----	65			McLean-----	40
Pueblo-----	48			(22%)	
(13%)					
CONNECTICUT		IOWA			
Tolland-----	58	Webster-----	63		
Hartford-----	53	Polk-----	62		
Litchfield-----	48	Dallas-----	60		
New Haven-----	40	Lee-----	41		
(75%)					

TABLE 13 .--Counties, by State, with 40 percent or more cows included in the National Cooperative Dairy Herd Improvement Program--January 1, 1971--Continued

State and county	Cows enrolled in DHIA plans	State and county	Cows enrolled in DHIA plans	State and county	Cows enrolled in DHIA plans
	Percent		Percent		Percent
NEW HAMPSHIRE		OHIO (contd.)		TEXAS	
Sullivan-----	56	Hamilton-----	45	Milam-----	75
Merrimack-----	42	Wayne-----	45	Starr-----	66
Hillborough-----	41	Allen-----	43	Deaf Smith-----	65
Stratford-----	41	Fulton-----	43	San Patricio-----	50
Cheshire-----	40	Logan-----	43	Scurry-----	50
(90%)		Madison-----	42	Archer-----	40
NEW JERSEY		Paulding-----	42	(6%)	
Burlington-----	46	Clark-----	41	UTAH	
(29%)		Lorain-----	41	Beaver-----	67
NEW MEXICO		Williams-----	41	Iron-----	63
Dona Ana-----	79	Ashland-----	40	Salt Lake-----	60
Sierra-----	70	Auglaize-----	40	Davis-----	53
Otero-----	54	(47%)		Wasatch-----	52
Bernalillo-----	52	OKLAHOMA		Summit-----	49
(19%)		Atoka-----	100	Sanpete-----	40
NEW YORK		Pittsburg-----	100	(45%)	
Dutchess-----	48	Grant-----	80	VERMONT	
Tompkins-----	48	Texas-----	75	Bennington-----	60
Columbia-----	47	Kay-----	60	Windsor-----	56
Seneca-----	44	Woodward-----	60	Washington-----	53
(37%)		Garfield-----	50	(71%)	
NORTH CAROLINA		Noble-----	40	VIRGINIA	
Bertie-----	100	Osage-----	40	City of Newport News-----	100
Dare-----	100	(35%)		James City-----	100
Halifax-----	100	OREGON		Nansemond-----	73
New Hanover-----	100	Josephine-----	52	Rockbridge-----	73
Swain-----	95	Benton-----	45	Lancaster-----	66
Jones-----	94	Klamath-----	42	City of Va. Beach-----	63
Onslow-----	91	(33%)		Gloucester-----	59
Hyde-----	84	PENNSYLVANIA		Hanover-----	56
Pitt-----	84	Lancaster-----	55	Madison-----	53
Nash-----	83	Huntingdon-----	54	Fairfax-----	52
Lenoir-----	81	Blair-----	53	Henrico-----	52
Richmond-----	81	Montgomery-----	50	Nottoway-----	50
Wake-----	79	Wayne-----	50	City of Chesapeake-----	49
Franklin-----	75	Mifflin-----	47	Culpeper-----	47
Orange-----	75	Carbon-----	46	Clarke-----	46
Harnett-----	71	Juniata-----	46	Pulaski-----	45
Pender-----	69	Sullivan-----	44	Isle of Wight-----	44
Craven-----	60	Clinton-----	42	Fauquier-----	42
Beaufort-----	59	Perry-----	41	Loudoun-----	42
Chatham-----	59	Allegheny-----	40	Augusta-----	40
Randolph-----	59	Union-----	40	Brunswick-----	40
Guildford-----	58	(72%)		Powhatan-----	40
Macon-----	58	RHODE ISLAND		(40%)	
Caswell-----	57	(40%)		WASHINGTON	
Columbus-----	57	SOUTH CAROLINA		Walla Walla-----	66
Cumberland-----	54	Calhoun-----	100	Pacific-----	50
Wayne-----	54	Colleton-----	100	Grant-----	47
Buncombe-----	52	Kershaw-----	100	Whitman-----	46
Forsyth-----	51	Lee-----	90	Kittitas-----	45
Person-----	50	Bamberg-----	83	Pierce-----	44
Catawba-----	49	Sumter-----	83	Jefferson-----	43
Cleveland-----	47	Clarendon-----	74	Wahkiakum-----	43
Gaston-----	47	Marlboro-----	66	Grays Harbor-----	40
Brunswick-----	45	Greenville-----	62	Snohomish-----	40
Madison-----	45	Saluda-----	61	(56%)	
Davidson-----	44	Jasper-----	55	WEST VIRGINIA	
Johnston-----	44	Newberry-----	54	(5%)	
Rowan-----	44	Abbeville-----	53	WISCONSIN	
Warren-----	44	Orangeburg-----	52	Kenosha-----	52
Alamance-----	43	Barnwell-----	50	Walworth-----	47
Montgomery-----	43	Dorchester-----	44	Manitowoc-----	44
Mecklenburg-----	42	Greenwood-----	41	Winnebago-----	44
Surrey-----	42	(43%)		Rock-----	42
Durham-----	41	SOUTH DAKOTA		Barron-----	41
Union-----	41	(6%)		Kewaunee-----	41
Washington-----	40	TENNESSEE		(58%)	
Yadkin-----	40	Dyer-----	41	WYOMING	
(63%)		(4%)		Park-----	80
OHIO				Big Horn-----	60
Marion-----	69			(17%)	
Erie-----	49				

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